

Application No.10/693,730

Reply to Office Action

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with an aqueous fountain medium containing comprising a solution or a dispersion containing which comprises at least one moiety having at least colouring coloring, pH-indicating, whitening, fluorescent, phosphorescent, X-ray phosphor or conductive properties.
2. (Currently Amended) The process Process according to claim 1, wherein said moiety having at least colouring coloring, whitening, fluorescent, phosphorescent, X-ray phosphor or conductive properties is an intrinsically conductive polymer.
3. (Currently Amended) The process Process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and polythiophene derivatives.
4. (Currently Amended) The process Process according to claim 2, wherein said conductive polymer is a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge.
5. (Currently Amended) The process Process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of: homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-(propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof.

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6. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium further contains comprises a polyanion.
7. (Currently Amended) The process Process according to claim 6, wherein said polyanion is poly(styrenesulfonate).
8. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium further contains comprises a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound.
9. (Currently Amended) The process Process according to claim 8, wherein said di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound is selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di(ethylene glycol)ethyl ether acetate.
10. (Currently Amended) The process Process according to claim 8, wherein said process further contains comprises heating a step subsequent to printing in which said receiving medium within 10 minutes of after printing is heated to a temperature of 100 to 250°C.
11. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium further contains an aprotic organic compound with a dielectric constant ≥ 15 .
12. (Currently Amended) The process Process according to claim 11, wherein said process further contains a step subsequent to printing in which comprises heating said receiving medium within 10 minutes of after printing is heated to a temperature of $\leq 150^{\circ}\text{C}$.
13. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium further contains comprises a non-ionic or anionic surfactant.

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14. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium has a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

15. (Currently Amended) The process Process according to claim 1, wherein said aqueous fountain medium contains comprises a dye and/or a pigment such that the colour color tone of the ink and the background color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.

16. (Currently Amended) The process Process according to claim 1, wherein said printing ink contains comprises a dye and/or a pigment such that the colour color tone of the ink and the background color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.

This listing of claims replaces all prior versions, and listings, of claims in the application.